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Is Germany electricity transmission regime institutionally correct?"

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Deregulating with no regulator:
Is Germany electricity transmission regime institutionally correct?

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Abstract

It seems hard to believe that electricity transmission lines can be open to "third party access" only with a "negotiated access regime" and no regulator supervision. It seems contradictory with the notion of "ex post contractual hazards" promoted by V. Goldberg and O. Williamson. If such a weak institutional arrangement is really implemented it actually has to be harmful to network and market access. If not, why and how could it work? 1° when looking in Germany at rules and prices for accessing the transmission network and the corresponding wholesale markets, the "club" arrangement for transmission opening doesn't appear so harmful. 2° accordingly we have to reconsider the ex ante and ex post institutional mechanism of such a "club" arrangement. Ex ante we first reconsider skills and strength of industrial consumers and German Business associations in defining and assessing rules of transmission access, as well as weaknesses coming from incomplete vertical and horizontal integration of German electricity companies impeding extensive cartel collusion. Ex post we first look at a strong Competition Authority backing. Then we discover that ex ante and ex post dimensions are much more mixed and reinforced in an open "cumulative pro-competition process" framed by the Competition Authority.

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INTRODUCTION

Deregulation is institutions friendly, both empirically and theoretically. Empirically deregulation of network industries is one of the main European Union policies since the mid 80' when the Member States gave the European Commission the goal of creating a European "Single Market" including the network industries. Theoretically deregulation of network industries is one core issue of New Institutional Economics. As early as the 60's New-Institutional Economists advocated for rebuilding the institutional frame of these industries around competition instead of regulation (Coase 1960, Demsetz 1968). In the 70's a new line of new-institutional analysis argued for not overestimating the capabilities of markets in governing the network industries' transactions (Goldberg 1976; Williamson 1976). It resulted in the notion of "administered contract". In the 90's, a new "new line" of institutional scholars showed that the efficiency properties of these "administered contracts" are strongly dependent of the actual characteristics of their institutional environments (Levy & Spiller 1994; Ménard & Shirley 2002).

What is German electricity deregulation bringing to that picture? A "strange form" of deregulation. As strange as the governance structure found eight years ago by Ménard in the poultry industry (Ménard 1996). Germany is deregulating its electricity industry with no electricity regulator. Since the pioneering UK electricity reform, creation of an independent industry regulator was seen as the corner stone of a competitive reform. Because of the very nature of natural monopolies of the network infrastructures, because of the externalities faced in the operation of these networks, and because of the contractual hazards rooted in deep asset specificities, a benevolent public authority was conceived as necessary for protecting and nurturing infant competition in that network industry. However, recent analyses of reforms in the telecommunication sector (Wallsten 2001) suggest that an independent regulator is not a necessary condition to the success of reforms.

In Germany, access to the electricity networks and markets is arranged by rules born in a private club made of electricity companies, their big industrial customers and the German Business Association. Of course such an arrangement could be strongly inefficient. If not, what a "club ruling" access to "deregulated" network and markets looks like? Obviously like a kind of hybrid form. But why and how it works? That's what our paper is conceived to explore.

In Part 1 we will give a "stylized facts" description of the German electricity reform, notably: its light basic law, its private "club" arrangement for defining and managing the rules of access to the grid, and the role of competition authorities in controlling the enforcement of these access rules.

In Part 2 we will consider if the German institutional arrangement for deregulation is so obviously inefficient by looking at it. It will surprisingly appear that some of the German features and performances for industrial customers could benchmark the English's and the Swedish's over the first years of their own competitive reforms.

In Part 3 we will look for an analytical understanding of this bizarreness by advocating an "à la Spiller" review of the institutional properties of the German arrangement. We will look at the "credibility" of a workable arrangement of this kind. Regarding the "institutional efficiency" of this arrangement, we will look for roots of its "flexibility" in its nature of open cumulative private arrangement and for bones of its "credibility" in its backing by a strong Competition Authority.

1 A STRANGE INSTITUTIONAL REFORM

It is now well known that competitive reforms of the electricity industry have not followed a uniform pattern (Newbery 1999, Glachant & Finon 2003). Germany stands out as a bizarre model of electricity reform: Its entire market was opened to competition in 1998 (thus, ahead of the European schedule), but no sector-specific regulator was established, and the specific legislation that implemented the electricity reform remained essentially mute on the key rules of implementation. Consequently, in this part, we will

present the principal "stylized facts" of this reform: a very light-handed legislation leaving it to private agents to define the new competitive rules (Section 1.1), private arrangements that set the terms of grid access (Section 1.2), and public regulation that principally works through the Competition Authorities (Section 1.3).

1.1 The "light-handed" electricity reform legislation of 1998

In Germany, the 1998 legislation that initiated the reform[2] took shape in a very light-handed law (only a few pages). Why did the legislative process not succeed in establishing a detailed regulatory framework? What elements of the reform are regulated by the new law?

1.1.1 The reform negotiation process

One reason for the German choice of light-handed legislation is found in the nature of its political institutions, particularly federalism. Broadly speaking, in the case of competitive electricity reform, the German federal government had a choice between a detailed legislation, which would have invaded the jurisdictions of the *Länder*, and a soft touch that would not intrude on their areas of control. In the former case, approval from the *Bundesrat* (upper house) would have been required, while in the second case the *Bundestag* (lower house, or Parliament) alone was able to pass the new law.

When the conservative government (which had a majority in the Parliament) presented a first draft, which made no provision for any special protection for municipal electricity utilities, the party of the left, the social-democratic party (SPD), having a majority in the *Bundesrat*, rallied to the municipalities' opposition to the federal government, and the *Bundesrat* vetoed the law approved by Parliament in the fall of 1996.

Confronted with this political stalemate, Parliament was forced to dilute and transform the draft legislation as much as possible so that it would no longer require approval from the *Bundesrat* (Tsebelis 2002 p. 80). This is how the Parliament alone was able to pass the reform act of 1998.

1.1.2 The contents of the 1998 law

The opposition of the *Bundesrat* to the initial legislative project explains why, in the German electricity reform, many aspects are not regulated by the law. Thus, the 1998 law says nothing on how producers should enter into competition. It does not create any wholesale market for electricity, nor does it specify the modalities of third party access (TPA) to the grid. In particular, no regulatory body is established[3] to monitor access terms and rates, the network access regime being "negotiated third party access" (NTPA). As a result, the competition act of 1957 gets its area of competence extended to the control of the conditions of market access in the energy sector. The application of competition act is the prerogative of the existing Competition Authority, the Cartel Office.

All these features of the German reform make it an unusual model in the European context, since the "public" (or "State") aspect is reduced to a strict minimum. In the absence of a legislative consensus, the governance structure of the reform was thus essentially private (Glachant 2003b).

1.2 The private agreements that regulate access to the electricity grid

In practice, thus, the economic rules of access to electricity grids are private agreements, called "Association Agreements" (*Verbändevereinbarungen*). These are

[2] The reform act of April 24, 1998, modified two important laws that applied to the electricity sector: the law on restrictions to competition (GWB) and the law on electricity and gas supply, or energy law (EnWG).
[3] However, the Federal Ministry of Economics retains the right to re-regulate network access if necessary.

collective contracts that link electricity utilities among themselves, with the association of large industrial consumers, and with the German Business Association .

1.2.1 The rationale of the negotiation and the stakeholders

Negotiation of the Association Agreements involves the principal electricity associations, the association of large consumers and the German Business Association, who voluntarily meet to jointly define the terms of access to electricity grids. The associations themselves select the participants in the Association Agreements, based on criteria of representativeness. The negotiation process is characterized by the unanimity rule. However, to minimize the danger of deadlock, decisions are bundled. The votes are on a collection of measures and not on each individual point (Arrow 1951).

The period 1998–2003 can be divided into two phases. In the first phase, the Association Agreements called *VVI*[4], starting May 1998, and the agreement called *VVII*[5], December 1999, were negotiated on an entirely private basis by the VIK[6] (association of large industrial electricity consumers) and the BDI[7] (German Business Association) on one side, and the VDEW, [8] the association of German electricity companies, on the other.

In the second phase we observe the appearance on the scene of two new actors. On the one hand, the Federal Ministry of Economics, who created its Task Force on access to the grid in April 2001. This small body (only a few people) has no official powers, but it participates in negotiations as a "moderator." On the other hand, the association representing the electricity companies officially split into four components, with the appearance of three new associations signatory to the Association Agreements. VDN[9], the association of grid operators, ARE[10], the association of regional distribution utilities, and VkU[11], the association of municipal distribution utilities. These associations enacted the third Association Agreement, *VVII+*[12]. The effects of the increasing number of participants in the Association Agreements will be analyzed in part 3.

1.2.2 The contents of the Association Agreements

The Association Agreements provide the basis for contracts under which third parties gain access to the grid, while establishing the criteria on which the rates are calculated. However, grid operators retain the choice of whether or not to apply the rules set in these agreements. Another feature of these agreements is their limited duration, obliging the associations to renegotiate them periodically. The associations determine the duration of the Association Agreements, except in the case of the first[13], for which the duration was set by the Competition Authorities. The *VVII* and *VVII+* agreements were both signed for two years.[14]

The three consecutive agreements have been characterized by a real evolution in the rate-setting rules for the grids. Thus, in *VVI*, rates were computed on the principle of "contractual path," which was characterized by distance-based rates. In *VVII*, distance-based rates were replaced by rates based on the point of connection, but an element of distance-based rates, named "T-component", was retained in the form of two geographical

[4] *Verbändevereinbarung über Kriterien zur Bestimmung von Durchleitungsentgelten vom 28. Mai 1998.*
[5] *Verbändevereinbarung über Kriterien zur Bestimmung von Netznutzungsentgelten vom 13. Dezember 1999.*
[6] *Verband der Industriellen Kraftwirtschaft*
[7] *Bundesverband der Deutschen Industrie*
[8] *Verband der Deutschen Elektrizitätswirtschaft*
[9] *Verband Deutscher Netzbetreiber*
[10] *Arbeitsgemeinschaft Regionaler Energieversorger*
[11] *Verband kommunaler Unternehmen*
[12] *Verbändevereinbarung über Kriterien zur Bestimmung von Netznutzungsentgelten für elektrische Energie und über Prinzipien der Netznutzung vom 13. Dezember 2001.*
[13] The first association agreement, *VVI*, was in effect from May 1998 until December 1999.
[14] *VVII* was in effect from January 1st, 2000 until December 31st, 2001, and *VVII+* has been in effect since January 1st, 2002. The relatively short duration of the Association Agreements was essentially sought by representatives of the large electricity consumers.

zones: North and South. In *VVII+*, geographical differentiation has been completely abandoned.

The Association Agreements provide for conflict resolution mechanisms in the form of arbitration proceedings[15], which do not, however, preclude resorting to the courts if a disagreement proves intractable.

The rules of access to the grid and the structure of the reform's governance are thus entirely private. The public authorities encourage application of the private rules, and have even passed a new law entrenching the methods for calculating the rates. Starting in May 2003 and until the end of 2003, the new energy bill[16] accepts as the basis for an acceptable calculation of rates the method stipulated in the Association Agreement *VVII+*.

1.3 The role of the Competition Authorities

The key role played by private agreements in terms of access to the grids and the absence of an electricity regulator does not mean that there is no public regulation. Indeed, the German Cartel Office (*Bundeskartellamt*), created in 1957, is the only official body with jurisdiction in matters of electricity transmission, and a new "Electricity Grid Access" division was established in the summer of 2001. On the other hand, the German Cartel Office is legally and constitutionally independent of the federal government. Consequently, it simultaneously exercises its new role of guardian of the new competitive regime of access to the electricity grid and its traditional role of Competition Authority (*ex post* overruling collusion and abuse of market dominance, *ex ante* control of concentration and exemptions).

1.3.1 A regulation that is traditionally ex post and non-discretionary

The traditional view of intervention by the Competition Authority is that it focuses its attention *ex post* on issues of rate setting and terms of access to electricity grids. The jurisdiction of the *Bundeskartellamt* in this area flows from the rules that forbid the abuse of a dominant position, as formulated in the Competition Act of 1957. Since 1999, a new law has added rules pertaining to "essential facilities," which formally forbid firms in a dominant position from refusing access to their network in exchange for an appropriate payment.

The fact that Competition Authorities only intervene *ex post*, and exclusively in a non-discretionary fashion (ultimately subject to the independent judiciary), is generally viewed as an obstacle to efficient regulation in sectors such as electricity (Laffont and Tirole 2000; Perrot 2002). More generally, Ménard (2003) has emphasized the difficulties of Competition Authorities in evaluating non-standard organizational forms (or "hybrid" forms).

German Competition Authorities however, do not only intervene *ex post* in the electricity sector. They have additional tools for influencing the electricity sector, since the *Bundeskartellamt* can also intervene *ex ante* as a regulator on certain topics.

1.3.2 The possibilities of public ex ante regulation by Competition Authorities

In Germany, three other paths of *ex ante* intervention are open to the Competition Authorities.

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[15] Thus, in the event of a disagreement on the interpretation of the association agreement, the parties can call on an arbitration proceeding, the "*Clearingstelle*" (implemented by the signatories to the Association Agreement) and, in the event of a disagreement on the rates for using the grid, on another arbitration proceeding, the "*Schiedsstelle*," which is independent of the professional associations. In this latter case the arbitration proceedings are not public.

[16] *Erstes Gesetz zur Änderung des Gesetzes zur Neuregelung des Energiewirtschaftsrechts, vom 20. Mai 2003*. In practice, this change to the law was intended to offer more legal protection to the network operators in terms of the rates set: A firm that respects the provisions of the association agreement will benefit from a presumption that its rates are computed on the basis of "good practices."

First, the existence of Association Agreements is due to a provisional exemption afforded on a case by case basis by the *Bundeskartellamt*. As of the signing of the first Association Agreement *VVI*, this body has retained the right, under the law, to block these private agreements because they include pricing recommendations that violate the Competition Act. In practice, however, the *Bundeskartellamt* has preferred to take the approach of using pressure and negotiation on the contents of these agreements, while limiting active intervention to a small number of specific problems related to access to the network. The reason of this strategy is that forbidding these agreements introduces a risk of blocking the transition of the sector to a more competitive regime (Bundeskartellamt 1999, p. 28-29). Firstly, the Competition Authorities' decisions could be challenged in court. Secondly, forbidding an Association Agreement would reduce the incentives of the associations to find a new cooperative agreement.

A second *ex ante* channel of intervention consists of signalling to firms the direction of future decisions in the area of curbing the abuse of market dominance (Nyborg and Telle 2004). Thus, in April 2001, the Competition Authority published a document detailing the evaluation criteria for setting grid usage rates in the event of litigation on behalf of the users. Similarly, the Competition Authorities can publicly name firms whose rates or terms may be the eventual target of a critical re-evaluation.

Finally, the last form of *ex ante* intervention in the terms of grid access is even more explicit (and, comparatively, the most discretionary), dealing with mitigating provisions for accepting merger proposals. Thus, it was in the context of the merger between RWE and VEW, in July 2000, that the "T component" included in the Association Agreements *VVII* was suppressed, that a unique "North / South" zone of regulation was created for the new merged firm, and that competitive mechanisms were put in place covering its supply of reserves and balancing energy (eliminating the monopolies held by RWE and VEW on supplying these services) (Brunekreeft 2001).

On the whole, it is quite true that the German model of competitive reform is characterized by minimal intervention by the legislator. It is also true that the definition of detailed rules of grid access for third parties is essentially left up to private self-regulation. However, the implementation of access to the grid is nonetheless, at least partially, regulated by the independent Competition Authority, both *ex ante* and *ex post*.

2 A GRID ACCESS REGIME BEING NOT AS BAD AS IT LOOKS?

It is important to note that there is no universally accepted model for competitive electricity reform as Wilson for example argues (2002). Thus, the California regime convinced no one that the 1990 reform in England should be discounted as a quaint artifact of moribund old Europe, especially as this latter reform really changed again its face in 2001 with NETA (the New Electricity Trading Arrangement). And the Scandinavian competitive reform is of a completely different type.

However, the German electricity reform bears so little resemblance to any competitive model that it appears to have been usurped from the beginning by the electricity cartel. Contrasting this assumption with some simple data, numbers, and facts, makes it clear that this pervasive opinion is not so easy to substantiate.

2.1 Numbers which are not really scary

Neither the rates set for access to the transmission grid, nor wholesale prices, nor the supply price to industrial consumers, provide ready and obvious evidence of abuse by the transmitters, either by agreement or cartel.

On one hand, rankings of European rates for access to the transmission grid (extra high voltage, EHV) reveal that German rates are considerably lower than French or Spanish rates, and even below British rates after 10 years of competitive reform (Perez-Arriaga 2002, Glachant 2003a). On the other hand, in Germany access to the transmission grid is free for all producers, only consumers pay for its use. This makes a price squeeze on transmission rates from the incumbent operators impossible.

Wholesale prices have been very reasonable during the first five years of the German reform (1998–2002). In the fourth and fifth year of this reform, in 2001 and 2002, these prices ranged between 25 and 30 euros per MWh. In comparison, the wholesale price in England remained around 35 euros for nearly ten years (Glachant 2000 and 2003b).

Finally, the price charged large industrial consumers saw a remarkable drop. During the first two years of the German reform (1998–2000), the mean price of electricity to industrial consumers fell by 25 per cent in current value, according to the association of large consumers, VIK. The British Electricity Association maintains that, in January 2000, the German electricity price to a large consumer (9 GWh / year) was more that 10 per cent below the British price (Electricity Association 2001).

None of these three facts would lead us to conclude that the cartel of transmitters, if it exists, has engaged in egregious abuse of its position as a dominant entity.

2.2 Facts that evoke a sense of "déjà vu"

It is true that there is no sector-specific regulator for access to the transmission grid, which is instead framed by private agreements. It is also true that public control of access to the grid is of an *ex post* nature, involving the Competition Authority. However, a closer examination of two other competitive reforms, in Britain and Sweden, may evoke a certain sense of déjà vu for some of these German particularities (Glachant 2002b and 2003).

Access to the electricity transmission grid, in fact, involves two groups of services: one is the use of the transmission infrastructure, and the other the management of electricity flows on the network (especially, managing losses, congestion, and ancillary services). For many years in England, and until today in Sweden, no public body regulated the management of flows on the transmission grid. In England, it was a private agreement within the electricity industry (the wholesale agreements named *E&W Pool*) that established the rules and rates for flows management. In Sweden the transmission system operator (TSO) self-regulates its behaviour in flows management. All in all, the institutional difference with the German regime is not that clear cut. Also, the Swedish regulator is only an *ex post* regulator of the limited group of services it is responsible for use of the transmission infrastructure. In this case, the institutional difference with the German Competition Authority is not very pronounced.

It is likely that, in England and Sweden, this private *ex ante* control, direct and unregulated, over an entire side of the rules of access to the grid did not appear very dangerous, since at the beginning of the competitive reform the electricity concerns were not integrated vertically or horizontally. One could reasonably count on the asymmetry of the various stakeholders' interests to limit the threat of cartelisation of the entire industry. Now, in Germany the vertical and horizontal integration of operators was incomplete, with one third of distribution in the hands of municipal utilities and another third with regional utilities, while eight firms coexisted on the integrated upstream generation / transmission front. This, incidentally, is why a flurry of mergers and acquisitions followed the initiation of the competitive reform.

In addition, large industrial consumers possess formal veto power over the rules of access to the grid proposed by the transmitters and the other electricity concerns. Apparently, this arrangement has no equivalent in any other European country.

All in all, access to the transmission grid clearly does not lie at the heart of competitive difficulties of the German reform (Bundeskartellamt 2003 p. 162). We cannot say as much of the regional grids or the local distribution system (Monopolkommission 2004, Müller and Wienken 2004). But how does it work, this strange arrangement in which the turkeys of transmission and the other electrical chestnuts negotiate the terms of the Christmas menu ?

3 THE RESOLUTION OF THE GERMAN INSTITUTIONAL ENIGMA?

Spiller et al. have proposed an analytical framework—in terms of the credibility and relative institutional efficiency of governance structures for reforms to network industries—which takes into account the role of the institutional environments[17]. In this framework, the credibility of a reform, defined as the capacity of the reform to provide stability of commitments, depends on the design of the regulatory institutions, and these in turn account for the given nature of the institutional environment, as defined by North (1991).

In the German electricity reform, the absence of a sector-specific regulator and the choice in favour of negotiated access to networks result in the creation of a particular regulatory governance structure, where the competition authorities are the main public regulator. The aim of this section is to analyse the institutional properties of such an institutional arrangement, and in particular the ability of the German electricity reform to provide credibility, i.e. stability of commitments.

3.1 The Spiller et al. analytical framework

The credibility of a reform relates to the ability of its governance structure to solve regulatory problems between the government, the operators, and other stakeholders. It rests primarily on the stability of commitments, which is considered as given if three complementary mechanisms are in place : "(a) substantive restraints on the discretion of the regulator, (b) formal or informal constraints on changing the regulatory system, and (c) institutions that enforce the above (…) constraints" (Levy and Spiller 1994). Stability of commitments is particularly crucial in infrastructure sectors, which are characterized by several specific contractual difficulties[18].

The governance structure is the key element in the institutional design of credible reforms. In Levy and Spiller (1994), sources of the credibility of reforms must be found in the complementarity of governance structures[19] and the institutional environment, which is a given in the short and medium term. The analytical framework of Spiller et al. distinguishes two main types of institutional environments: those characterised by many checks and balances on the one hand, and those that give discretionary powers to some political actors on the other. The US are an example of the former: because of the multiplicity of checks and balances, credibility can be provided by administrative procedures, i.e. by giving discretionary powers to the regulator. The UK are an example of the latter: the institutional environment of that country is considered as problematic one some aspects. To achieve credibility of regulations, several mechanisms had to be built in the regulatory governance structure. Firstly, few discretionary powers were given the regulator, because of the use of licenses (Levy and Spiller 1994). Secondly, some checks and balances were included in the regulatory process, as shown by Spiller and Vogelsang (1997). The analysis of the UK regulatory structure shows that, even in difficult regulatory environments, some "weak pillars" of credibility can be built in the regulatory governance structure.

We will use an approach similar to Spiller et al. to look at the credibility of the German system of "regulated self-regulation" (Schneider 1999). Therefore, we will analyse the structure of the German regulatory game, both at the "constitutional" stage and at the implementation stage (Buchanan 1987).

[17] Levy and Spiller (1994 and 1996) in telecommunications reform, Guasch and Spiller (1999) on reforms to various network industries in Latin America; Spiller and Savedoff (1999) on reforms to water distribution sectors; Spiller and Martorell (1996), Bergara, Heniz, and Spiller (1998), Holburn and Spiller (2002) on electricity reform.

[18] Glachant (2002a).

[19] Spiller (1996, 1998) and Guasch and Spiller (1999) identify four main types of basic regulatory instruments that can be used in the regulation of utilities: specific legislation, presidential decrees, administrative procedures, and contracts. The ability of each to provide commitment depends crucially on the characteristics of the political and judicial institutions of each country.

3.2 A model of the German regulatory game

The German electricity reform law of 1998 and the network access rules which have been defined by self-regulation are the two stages of the regulatory game. At the first stage, the reform decisions are taken by the political actors at the federal level. These actors interact as "veto players" in a political game. The outcome of this first stage is a vague legislation. At the second stage, this vague legislation is implemented by business associations representing the different stakeholders to which the reform process applies.

3.2.1 The initial definition of the regulatory governance structure

At the "constitutional" stage of the definition of the regulatory governance structure, the main objective is the transposition of the EU electricity directive 96/92 in national law. Three actors are shaping the regulatory game: firstly, the Federal Government, secondly, the Federal Parliament (*Bundestag*) and thirdly, the Federal Council (*Bundesrat*), which represents the sixteen states. The Federal Government acts as the agenda setter in the electricity reform process in the mid 1990's – it introduces the new energy bill into the Federal Parliament in order to replace the 1935 Energy Law. The *Bundestag* then examines the proposed bill. For bills entailing a change in the competencies of the states, the approval of the *Bundesrat* is required.

Diagrammatically, the new energy bill had to deal with two main questions. The first question was what degree of competition to introduce in the electricity sector. The second question was whether to create new rights of regulation, and to modify existing rights of regulation. If the new energy bill was to modify the existing rights of regulation held by the Energy Ministries of the states, the *Bundesrat* became a veto player, else, the *Bundesrat* had no influence on the bill.

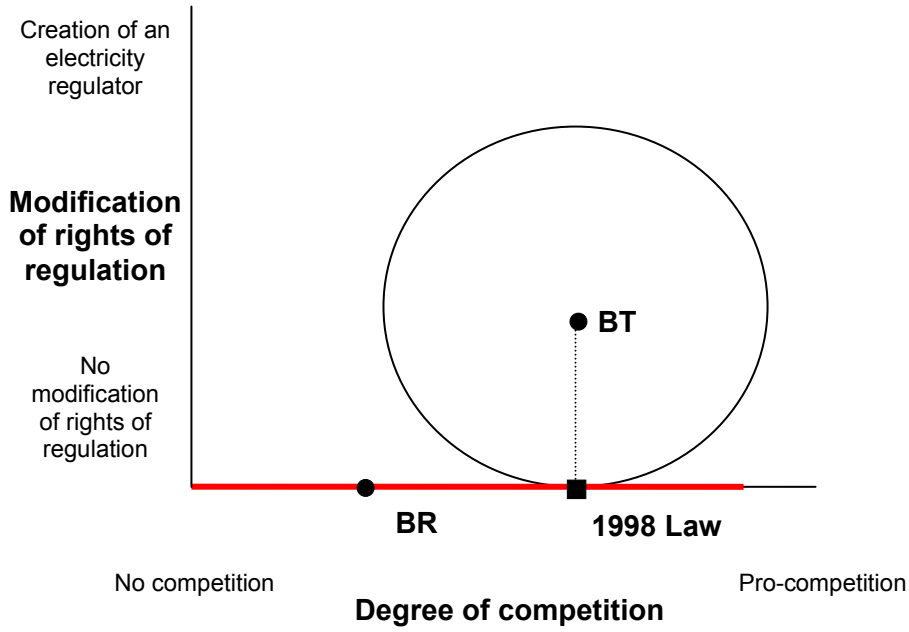
The energy bill initially proposed by the Federal Government to the Parliament had implications on these two dimensions. Political rivalries in the German institutional structure of division of powers between the two legislative bodies and between the federal and regional levels of executive power kept the federal government[20] from imposing such a radical competitive reform (Eising 1999; Glachant 2001; Perez 2002 and 2003). Under these conditions of legislative stalemate on the modification of rights of regulation, a system of negotiated network access was chosen as a way of implementing the reform to access to the grid.

The outcome of the legislative game is represented in figure 1, which shows the two dimensions of legislative choice. Each player is represented by a point that indicates his preferred policy: BT for the *Bundestag*, BR for the *Bundesrat*. The Government's preferred policy is not represented on the figure, because the Government is only a weak veto player: the need for approval of the legislation by the *Bundesrats* weakens the agenda-setting power of the Government (Tsebelis 2002). In addition, before the 1998 reform, the Federal Government neither had rights of regulation of the electricity sector (the rights of regulation were in the hands of the states), neither owned any electricity company. The BR has a veto right only on the dimension "modification of rights of regulation". As the *Bundesrat* refused the energy law proposed by the *Bundestag*, the latter had no choice than voting a law that did not modify the existing regulation rights of the states. On the second dimension, the degree of competition in the sector, the *Bundestag* could implement the solution next to its preferred point. The circle on the figure represents the indifference curve of BT, given the constraint of no modification of existing rights of regulation.

[20] As Germany is a parliamentary system, the composition of the Government reflects the majority in the *Bundestag*. The main source of political conflict comes from the checks and balances created by the intervention of the *Bundesrat* in the legislative process.

Figure 1 -

The legislative game in 1998



3.2.2 The implementation of the new regulatory governance structure

As described in part 1, the new electricity law is a vague legislation. In spite of its lack of detailed rules, two elements make the new law a pro-competitive one, mainly because they impose two very pro-competitive actors in the implementation stage of the reform.

Fist, the law opts for the system of negotiated network access. As a consequence, a part of the regulatory governance structure is self-regulatory, i.e. it is set up by industry associations representing the electricity companies on the one hand, and the industrial consumers on the other hand. These associations are engaged in a bargaining game for the definition of the content of the Association Agreements. As a consequence, the big electricity consumers get the possibility to exercise their bargaining power to influence the network access rules.

Second, the law opens the total electricity market to competition, simply by suppressing the exemption of electricity contracts of the competition law. As a consequence, the Federal Competition Authority (BKA) gets some rights of (ex-post) regulation.

Beginning with the implementation stage, the legislature disappears from the negotiations, since its role of providing direct input has been fulfilled. The dynamics are now taken over by the Cartel Office, the only public agency with a say in matters of competition and the Federal Ministry of Economics, who holds a credible threat of re-regulating access to networks.

The nature of the bargaining game is shaped by the process of interaction of the various players. This process is made of three steps.

1° the self-regulatory Association Agreement is negotiated by the main stakeholders concerned by the reform. Every association has bargaining power in the definition of the

agreement. However, the parties do not negotiate on each element of the reform, but on bundles of rules that are accepted or rejected *in toto*.[21]

2° depending on the degree of opening to competition of the Association Agreement, the Competition Authority (BKA) decides whether to sanction[22] the Association Agreement.

3° finally, if there is no agreement or if the process results in bad outcomes, the Federal Ministry of Economics holds a threat of re-regulating the conditions of network access.

The aim of this paper is not to model the corresponding bargaining game. However, we can assume that there are some incentives for the associations to find an agreement if they believe that a sanction by the Competition Authorities or a public regulation could lead to worse outcomes than a negotiated competitive opening.

One interesting particularity of the bargaining game on electricity network access rules is the strategy of the Competition Authority. We can assume that the Competition Authority can choose among three possible strategies: (a) accepting the Association Agreement, (b) sanctioning the Association Agreement by declaring it incompatible with the Act against Restrictions of Competition, or (c) declaring that, in spite of incompatibility with the Act against Restrictions of Competition, it will allow the Association Agreement for a limited duration. There are several advantages to opt for the third strategy if the Competition Authority disagrees with an Association Agreement. First, because it is costly to block the self-regulation (a bad Association Agreement is better than no Association Agreement at all). Second, in the presence of uncertainty on the preferences of the courts, this strategy allows the Competition Authority not to be overruled by courts. Finally, the fact of allowing a "bad" Association Agreement for a limited duration obliges the associations to engage in further negotiations in order to improve the rules of network access. Thus, the associations are engaged in a dynamic process of improvement of the rules of access to the electricity grids. Because of the remaining threat of intervention of the Competition Authority, this creates a "ratchet effect": every new Association Agreement has to be more competitive than the former one. There is however a disadvantage of imposing periodical renegotiations of the Association Agreements: the improvements of the rules of access to networks are made very slowly.

This strategy has found regular expression since 1998, with three successive Association Agreements having emerged (called *VV I*, *VVII* and *VVII+*), each limited to two years.

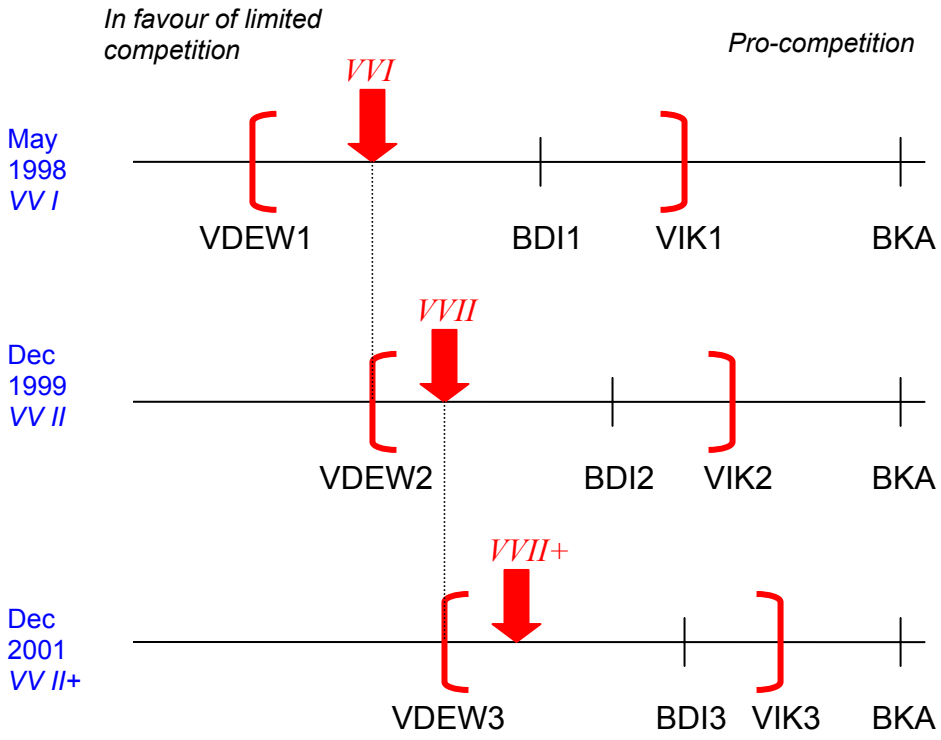
Figure 2 gives a simplified illustration of the regulatory game since the 1998 Energy Law. The preferences of each association are represented on an axis. The association of the electricity sector VDEW has a preference for limited competition. The association of large consumers VIK is seeking the substantial rate reductions permitted under competition, and finally the federal association of industry BDI is assuming an intermediate position. The BKA has a very pro-competitive position. The courts and the Federal Ministry of Economics are not represented on the figure, because there is an uncertainty on their preferences in the period 1998-2002.

[21] This mode of negotiation allows the effects of the Condorcet paradox to be limited, as well as sequence effects in the votes on rules. However, this raises the issue of the composition of the bundles of rules to be submitted to negotiation.

[22] The decision of the Competition Authority to sanction the Association Agreement can be reversed by courts: first the Higher Regional Courts (OLG), and then the Federal Court of Justice (BGH).

Figure 2 -

The regulatory game at the implementation stage of the reform



The first agreement (called *VVI*), negotiated in 1998 by three parties (VDEW, BDI, and VIK), is only acceptable to the external public bodies as a provisional agreement. The Cartel Office (BKA) is dissatisfied with this first agreement. Instead of forbidding *VVI*, the BKA chooses to limit its duration. In other words, the first agreement is only rendered acceptable to the external institutions because of the stakeholders' undertaking to modify it during the next round of negotiations.

At the stages *VVII* (signed in December 1999) and *VVII+* (signed in December 2001), the competitive dynamic is captured by a shifting of the negotiable area as competition is increasingly entrenched, while capitalising on this progress represents the "ratchet effect" introduced by the Cartel Office. Given this framework, the initial stakeholders, VDEW, BDI, and VIK have no option but to move toward competition for their agreement to be acceptable (this is represented by the move to the right of the segment representing the negotiation set of the associations).

The result of the whole process is that the Competition Authority attracts the Association Agreement towards its preferred policy. The limit of the Competition Authority's possibility to influence the evolution of the agreement is given by the preferences of VIK. However, BKA could fail if she tried to implement VIK's preferred policy outcome, since there is always a risk that the associations do not agree on any Association Agreement. This strategy of BKA to opt for a progressive implementation of competitive solutions in the electricity sector instead of sanctioning bad agreements is corroborated by the literature on the use of warnings in regulation (Nyborg and Telle 2004).

3.3 The institutional efficiency of the German institutional arrangement

Credibility and institutional efficiency are related issues. While credibility relates to the ability of the regulatory system to protect private investments from opportunistic intervention of the legislative and executive bodies (Levy & Spiller 1994), we call "institutional efficiency" of an institutional arrangement its ability to provide credibility, while at the same time allowing adaptation to changing conditions, i.e. flexibility (Perez 2002).

The work of Spiller has traditionally insisted on the fact that there is a trade-off between credibility and flexibility, i.e., that in general credibility can be achieved only at the expense of limited flexibility. More recently, Holburn and Spiller (2002) have emphasized the role of flexibility in sectors such as the electricity sector, suggesting that the best regulatory option is not always a maximum of credibility if there is no potential for adaptation in case of changing circumstances.

3.3.1 Regulatory credibility

If we refer to Spiller's definition of credibility, it appears that credibility can be understood as stability of commitments. We will focus here on the two first conditions for credibility (Levy and Spiller 1994), the issue of judicial independence being less crucial in the German case, because Germany is generally considered as a country with an independent judiciary.

Concerning the first condition, the German electricity reform leaves few discretionary powers to the electricity regulator, i.e. the associations negotiating Association Agreements and the Competition Authorities. The Competition Authorities are inherently non-discretionary, their decisions being limited to the application of competition law. Moreover, in Germany the decisions of the Competition Authorities can be challenged in court. As shown in figure 2, the uncertainty concerning the preferences of the Higher Regional Courts and the Federal Court of Justice and the risk of having no Association Agreement at all are likely to limit the Competition Authorities' opportunism. The discretionary powers of the professional associations are limited by two complementary mechanisms. Firstly, the presence of the large industrial consumers and the Federation of German Industries in the negotiations of the Association Agreements places an internal and *ex ante* constraint on the formation of entirely anticompetitive agreements of electricity utilities. Secondly, two public institutions that are outside the agreements oversee the stability of the commitments that are made in them. The first is the independent Competition Authority,[23] which holds a credible threat of sanction against abusive behaviour. On the one hand, the Competition Authority can forbid Association Agreements after they have been signed, on the other hand, even if the general rules of the Association Agreements have been accepted by the Competition Authority, it can forbid particular arrangements concerning the access to electricity networks. The second public institution in charge of overseeing the self-regulatory mechanisms is the Ministry of Economics,[24] which retains the power to re-regulate grid access rates.

Concerning the second condition, the limitations on changes of the regulatory system, it appears that the German electricity sector is vulnerable to legislative change. In 1998, the legislator was unable to agree on a specific legislation, and instead opted for a vague legislation. As the 1998 energy bill created no rights of regulation, it seems that a reform changing radically the regulatory rules (or a law creating a sector-specific regulator) could easily be voted. On the other hand, the choice in favour of a vague legislation can be interpreted as a signal that legislative costs are high (Spiller 1996). This is corroborated by the analysis of the legislative game represented in figure 1. This legislative process is

[23] § 19 IV n°4 of the competition act.

[24] § 6, n°2, of the 1998 act provides for the option of regulating access rates if no agreement is reached between the grid owners and those seeking access. Moreover, the law stipulates that, as of 2000, firms must publish indicator values for their grid access rates, so as to facilitate implementing sanctions and acting on consumer complaints.

characterized by many checks and balances. The veto right of the *Bundesrat* (i.e. the states) on regulatory issues appears as a strong commitment mechanism that protects the electricity sector from drastic changes. However, in a situation where the *Bundestag* and the *Bundesrat* had the same majorities, some legislative changes could be passed.

Although the German electricity reform is not totally credible in the sense of Spiller, it contains some elements of "weak powered credibility"[25].

3.3.2 The institutional efficiency of the German model of regulation

As a consequence of the "weak-powered" stability of commitments, the German institutional design for electricity allows some flexibility of rules. Since 1998, three successive Association Agreements have been negotiated: each of them has brought improvements in the conditions of network access. This successful re-negotiation of Association Agreements is in part explained by the interplay of Associations and the Competition Authorities. As direct, *ex ante*, intervention on their behalf is problematic owing to the light-handed nature of the legislative framework and the presence of many judicial checks and balances, the Competition Authorities have an interest in seeing self-regulation work. Paradoxically, the pro-competition policy of the Cartel Office is thus advanced by successful negotiation between the private partners. Indeed, since all of the Office's decisions can be appealed to the courts, and since there is a strong uncertainty on the preferences of the courts, its position is actually strengthened if it is based on elements already entrenched in voluntary private agreements. The risk of having its authority undermined is sufficient incentive for the Cartel Office to prefer more of an ongoing process of dynamic negotiations.

However, in the absence of a specific legislation on electricity reform and an *ex ante* competitive structure, the Cartel Office cannot move at more than a snail's pace. Flexible rules are attractive for competition policy in a federal institutional environment, where radical changes to laws can be vetoed. That which could not be obtained immediately, by legislation, will be sought by a dynamic and progressive displacement of certain key rules.

CONCLUSION

It seems hard to believe that electricity transmission lines can be opened to "third party access" only with a "negotiated access regime" and no regulator supervision. It seems contradictory with the notion of "ex post contractual hazards" promoted by V. Goldberg and O. Williamson. If such a weak institutional arrangement is really implemented it actually has to be harmful to network and market access. If not, why and how could it work?

When looking in Germany at rules and prices for accessing the transmission network and the corresponding wholesale markets, the "club" arrangement for transmission opening doesn't appear so harmful. Accordingly we have to reconsider the *ex ante* and *ex post* institutional mechanisms of such a "club" arrangement.

Ex ante we first reconsider skills and strength of industrial consumers and German business associations in defining and assessing rules of transmission access. Obviously such powerful interests are able to invest in the building and the management of a "bilateral" governance structure of a network competitive reform. Furthermore actual weaknesses are revealed on the opposite side with an incomplete vertical and horizontal integration of German electricity companies and this is impeding extensive cartel collusion among the electrical industry.

Ex post we first look at a strong Competition Authority backing the pro competitive players from outside the private governance structure. Then we discover that *ex ante* and *ex post* dimensions are much more mixed and reinforced in an open "cumulative pro-

[25] The existence of "weak pillars of credibility" has been demonstrated by Spiller and Vogelsang (1997) in their analysis of the British telecommunications sector. In that case, in an institutional environment that was problematic in terms of credibility, the regulatory governance structure was built to overcome the credibility problems by appropriately using regulatory process.

competition process" framed by the Competition Authority. In a reform process initially constrained by a divided federal institutional environment we hardly see how the Competition Authority could have behaved better.

The European electricity directive of 2003 has put an end to this fairy tale…

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